UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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MAR 2 2 2012

Jonathan D. McDade
Region Administrator
Federal Highway Administration
Leo W. O'Brien Building
11A Clinton Avenue, Suite 719
Albany, New York 122007

Dear Mr. McDade:

The Environmental Protection Agency (EPA) has reviewed and provides the enclosed specific comments on the Federal Highway Administration's (FWHA) Draft Environmental Impact Statement (DEIS) for the Tappan Zee Hudson River Crossing Project (CEQ# 20120017). This review was conducted in accordance with Section 309 of the Clean Air Act, as amended (42 U.S.C 7609, PL 91-604 12 (a), 84 Stat. 1709), and the National Environmental Policy Act (NEPA).

The purpose of the project is to maintain a vital link in the regional and national transportation network by providing a Hudson River crossing between Rockland and Westchester Counties, New York that addresses the limitations and shortcomings of the existing Governor Malcolm Wilson Tappan Zee Bridge. The DEIS discusses two options for the crossing substructure (the short and long span options) and two possible superstructures for the bridge (cable stay and arch). These versions have only minor variations in their impacts to the environment.

While the prior proposed Tappan Zee/I-287 Corridor Project included transportation improvements to a 30-mile corridor from Suffern, NY to Port Chester, NY, this project is being advanced specifically to address the immediate structural and operational deficiencies of the Tappan Zee Bridge and not the adjacent highway. While EPA understands the change in scope of the project and is aware that a mass transit system across the bridge is not under consideration at this time, EPA continues to believe that such an option would accrue significant environmental benefits. We therefore recommend that as construction of the new bridge proceeds, FHWA continues to explore the feasibility of incorporating mass transit into the bridge reconstruction. EPA supports the future construction of a mass transit system in this corridor as it would provide a low-pollution, energy-efficient alternative to automobile travel. Other transportation control measures, such as increased bus fleets, bus/carpool lanes, and commuter-carpool programs would also reduce air pollution and energy consumption on the replacement bridge in the future. As analyzed in the previous Tappan Zee Bridge/I-287 Environmental Review process and compiled in a *Transit Mode Selection Report* by the New York State Department of Transportation, a bus rapid transit system has the potential to reduce nitrogen oxide emissions by

as much as 2 tons, carbon monoxide emissions by more than 2 tons, volatile organic compounds by up to 300 pounds, particulate matter (PM10) up to 10 pounds and fine particulates (PM 2.5) up to 6 pounds for the 4-hour peak morning period, every weekday.

As stated in the DEIS, the new crossing will not preclude mass transit and will be designed and built so that mass transit options can be accommodated in the future. To lay a foundation for mass transit, EPA suggests that FHWA incorporate into the Record of Decision (ROD) a summary statement regarding how the future for mass transit fits into the process and how agencies can analyze, secure funding, construct and operate a mass transit system on the new crossing. By acknowledging this future action in the ROD, it validates FHWA's commitment to future environmental progress in air quality and traffic congestion.

EPA has noted the recent discussion regarding the feasibility of leaving the existing bridge intact to be enjoyed by residents of the Hudson Valley as a recreational walkway and bikeway. If the State of New York were to make such a request, EPA will support its consideration. Additional environmental analysis would need to be completed by FHWA in order to determine the potential impacts should this proposal be considered.

Finally, EPA recommends that FHWA work with other federal and state agencies to prepare an Environmental Performance Commitment (EPC) Plan and arrange for ongoing interagency meetings during the project's construction. Interagency coordination would ensure that the EPCs are being met, and that any changes to the project made during the design and build process could be reviewed jointly among the agencies.

EPA has rated the document EC-2 (Environmental Concerns – Insufficient Information), as more information is required to fully assess environmental impacts, including emissions information, sediment volumes, and wetlands and benthic habitat mitigation as discussed in our comments enclosed with this letter.

Thank you for the opportunity to comment on the document. If you have any questions, please call Lingard Knutson, Principal Project Reviewer at (212) 637- 3747.

Sincerely,

Judith A. Enck

Judith A. Enck
Regional Administrator

Enclosure

Environmental Protection Agency Technical Comments on the Federal Highway Administration's January 2012 Draft Environmental Impact Statement for the Tappan Zee Hudson River Crossing

Air Quality:

- Since this project has been determined not to be a "project of local air quality concern" (per 40 CFR 123(b)(1)), EPA agrees that no PM hot spot analysis was required (per 40 CFR 93.116(a)) and acknowledges that the project sponsors did not complete such an analysis to meet Federal requirements.

- The project sponsors did perform a PM microscale analysis to meet state requirements. Regarding this analysis, EPA could not determine whether the project would cause new violations of the PM National Ambient Air Quality Standards (NAAQS) or worsen existing violations at the following locations: Rockland County Residential and Sidewalk locations, and Westchester County Residential and Sidewalk locations. The analysis was based on NYSDOT's "incremental threshold" values at these locations, rather than total predicted concentrations of PM. EPA believes that an analysis showing total predicted concentrations and a comparison to the PM NAAQS would give the public a better understanding of the potential impacts of the project.

- Chapter 18, page 18-43 indicates, "total combined concentration increments were estimated by combining the results from on-site construction analysis with the construction-related mobile source increments from the mobile source receptor closest to the location of the on-site increment." It further states that the maximum total combined 24-hour PM concentration on the Rockland side is 34.9 ug/m^3 and on the Westchester side is 35.6 ug/m^3. These values do not appear to coincide with numbers in the tables presented. Please clarify the numbers used in calculating the maximum combined values.

- Table 18-17 (Emissions from Dredging Activities) on page 18-44 lacks sufficient information regarding the methodology and assumptions used. Please provide details on what actions were covered in this general conformity analysis along with your assumptions. Please include tables with emission factors, load factors, operating time, engine type, and engine size for all engines used in the general conformity analysis and references. The calculated emissions from dredging activities should also include SO2.

- It is unclear if emissions from "armoring" (layering the newly dredged channel with stone) were included in the total emissions numbers.

- For the analysis of Mobile Source Air Toxics (MSATs) in NEPA documents, FHWA developed a tiered approach in its Interim Guidance to analyzing MSATs in NEPA projects. The project sponsor determined that the Tappan Zee Bridge project falls under the first tier of the three tiers identified in the guidance document – "No analysis for projects with no potential for meaningful MSAT effect." This is reflected in the last paragraph of section 11-2-1 "Pollutants for Analysis" of the DEIS which states that MSATs are not a concern as the project would not increase overall traffic volumes and overall MSAT emissions would not change. Although no quantitative analysis of MSATs is required for tier one projects, the FHWA Interim Guidance does suggest

model language to adequately address MSAT impacts to transportation projects. This language should be adopted into the EIS and modified according to the specifics of this project. See appendix A of FHWA's MSAT Interim guidance located at: http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109guidmem.cfm

- Please clarify that "rates" on page 18-39, second paragraph refers to de minimus thresholds.

Dredging:

- Table S-3, Water Resources Environmental Performance Commitments, states, "Truck transport of dredged material would not be allowed." In previous discussions with EPA, FHWA indicated its intention to have all material dredged from the bridge area transported by barge, and not by trucks, for placement at the Historic Area Remediation Site or to an upland transfer site. If an upland disposal site is used, the total exclusion of trucks for dredged material transport may not be feasible. This statement should be clarified.

- Section 3-6-3-2 states that the total volume of sediment to be dredged for the Tappan Zee project is 1.74 million cubic yards. The U.S. Army Corps of Engineers' January 27, 2012 Public Notice states that 1.5 million cubic yards will be dredged. These two different volumes need to be reconciled in order to identify the impacts of dredging and placement of dredged material. This section of the Final EIS (FEIS) should also discuss the possibility of placement of the dredged material upland.

Water Quality:

- Table 15-8, page 15-21 states that stormwater runoff from the bridge span will be discharged directly to the Hudson River. EPA recommends that FHWA utilize stormwater collection and treatment from the bridge to minimize oil, grease and other contaminants reaching the Hudson River. The North Carolina Department of Transportation has a "Stormwater Management Best Management Practices Toolbox" at http://www.ncdot.org/doh/preconstruct/highway/hydro/pdf/StormwaterBMPMarch08.pdf EPA also recommends the Alaska University Transportation Center Report (2010) entitled "Bridge Deck Runoff: Water Quality Analysis and Best Management Practices Effectiveness," available on the web at http://ine.uaf.edu/autc/projects/bridge-deck-runoff-water-quality-analysis-and-best-management-practice-effectiveness/.

Wetlands:

- Table 18-25 identifies the potential temporary impacts to wetlands from the project as 3.5 acres of freshwater wetland, 5.3 acres of tidal wetland, and 0.4 acre of open water. As construction of the

new bridge will take four to five years, the U.S. Army Corps of Engineers may require some mitigation for temporal losses of aquatic resource functions (40 CFR 230.93(f)(2)).

- Table 18-25 also shows that if the Short Span option is chosen, there will be a permanent loss of 1.2 acres of benthic habitat. Mitigation for this habitat loss should be included in the final EIS (FEIS), including location and amount.

Multimodal Issues:

- EPA understands that future mass transit is not being precluded from the Tappan Zee Crossing; however, the lack of space between the parallel bridge structures near the shoreline would seem to negate the use of commuter rail in the future

- It is EPA's understanding that 21 NYCRR, Chapter 3A, §102.1 prohibits the use of the Thruway system by pedestrians and bicycles. EPA requests clarification, given this understanding, on whether a pedestrian access causeway will be allowed on the new bridge.

Associated Issues:

- EPA recommends that revegetation efforts should use native plants, including South Nyack Historic District noise walls.

- Figure 2-3 should be labeled as the Short Span Option.

- Section 4-5-1-3 discusses the New York Metropolitan Transportation Council's (NYMTC) 2008-2012 Transportation Improvement Plan (TIP). NYMTC is now working with the 2011-2015 TIP, which lists operational funds for the Orange-Westchester Link and the Tappan Zee Express Bus, but no funds for expansion studies. This section may require updating, and the FEIS should include references or a web site referring to any appropriate studies.

- Page 5-19 states that six residential parcels, a portion of the Bradford Mews parking area, and 0.01 acre of green space will be acquired in the Village of South Nyack, Rockland County. Page 6-1 states that the project is expected to result in the full or partial acquisition of 12 properties, including nine households. The executive summary, section S-6-7 states that there will be an acquisition of "several properties." All these sections need to be consistent regarding the number of residential parcels, households and/or businesses to be acquired.

- Chapter 10, page 10-19 discusses the additional sediment borings planned for early 2012 to determine if historic or cultural resources that are considered eligible for the National or State Register of Historic Places are present on the western side of the Hudson. Page 10-21 states that the University of Massachusetts is currently reviewing all available

remote sensing data of the area of potential effect for direct effects to submerged historic resources. All of this data should be included in the FEIS to ensure a complete discussion of the project's possible impacts to and mitigation for historic or cultural resources.

- Section 11-2-1, page 11-2, states that non-road diesel federal regulations will require the phase out of sulfur in diesel for all uses. In fact, all non-road fuel will contain 15 parts per million of sulfur, and is labeled ultra-low sulfur fuel. All non-road engines used in this project must use ultra-low sulfur fuel.

- Page 6-12 identified the NY Central Railroad in Westchester. Is this actually the Metro-North Railroad?

- There is no glossary in the document. As several terms are used for parts of the crossing, a glossary is necessary for clarity. For example, on page 2-11, the term "backspan" is used, but not defined.